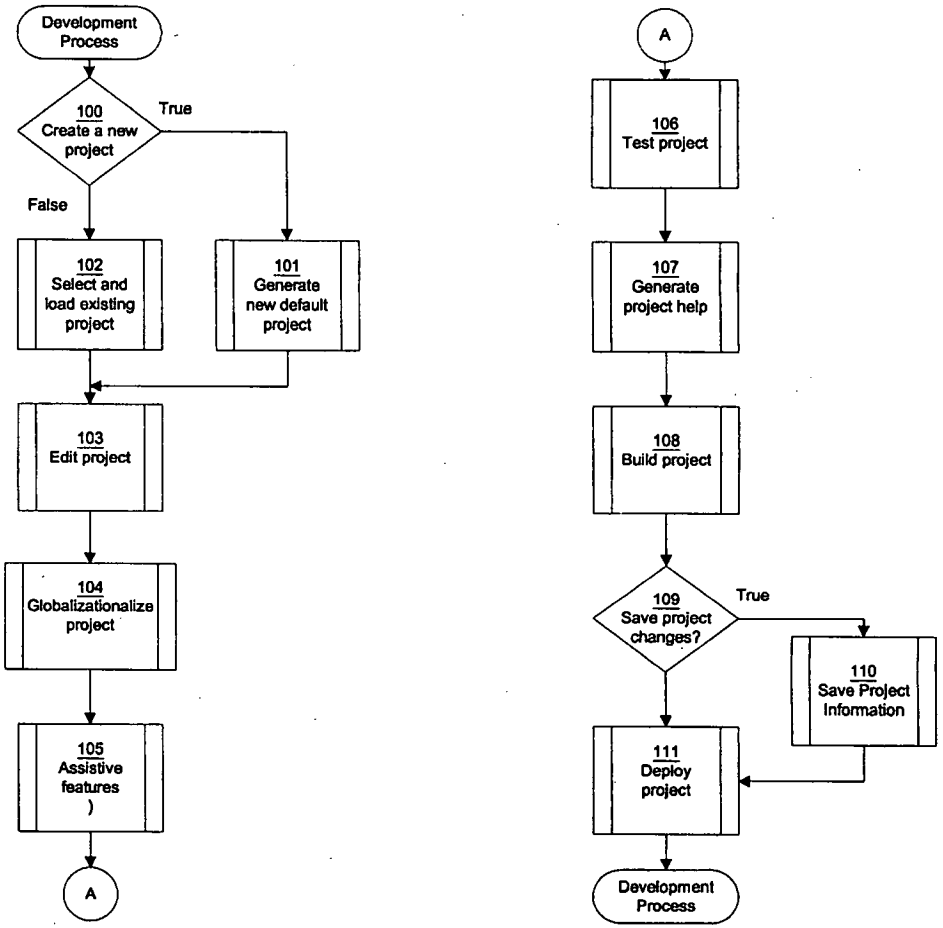
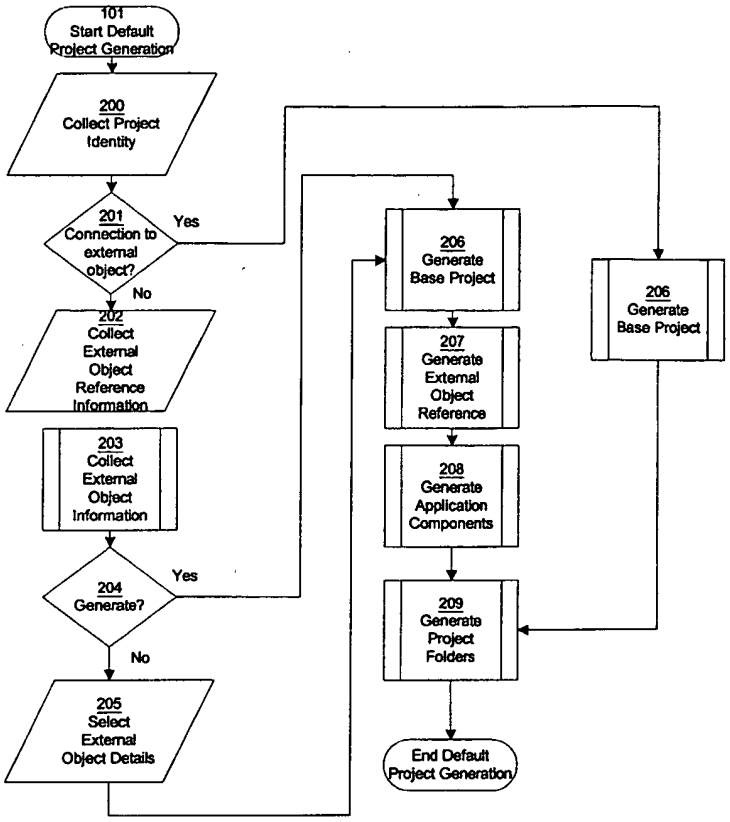
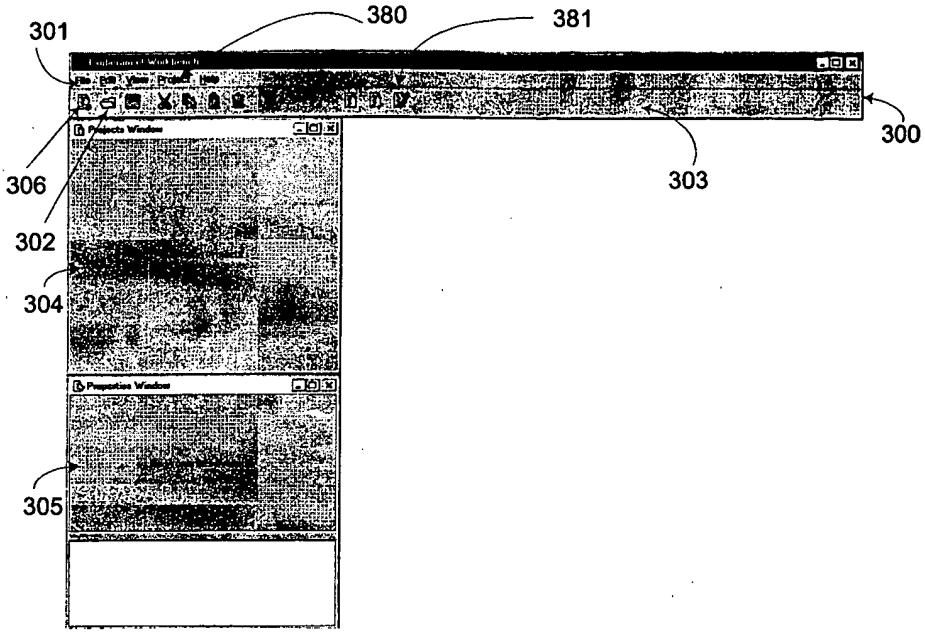
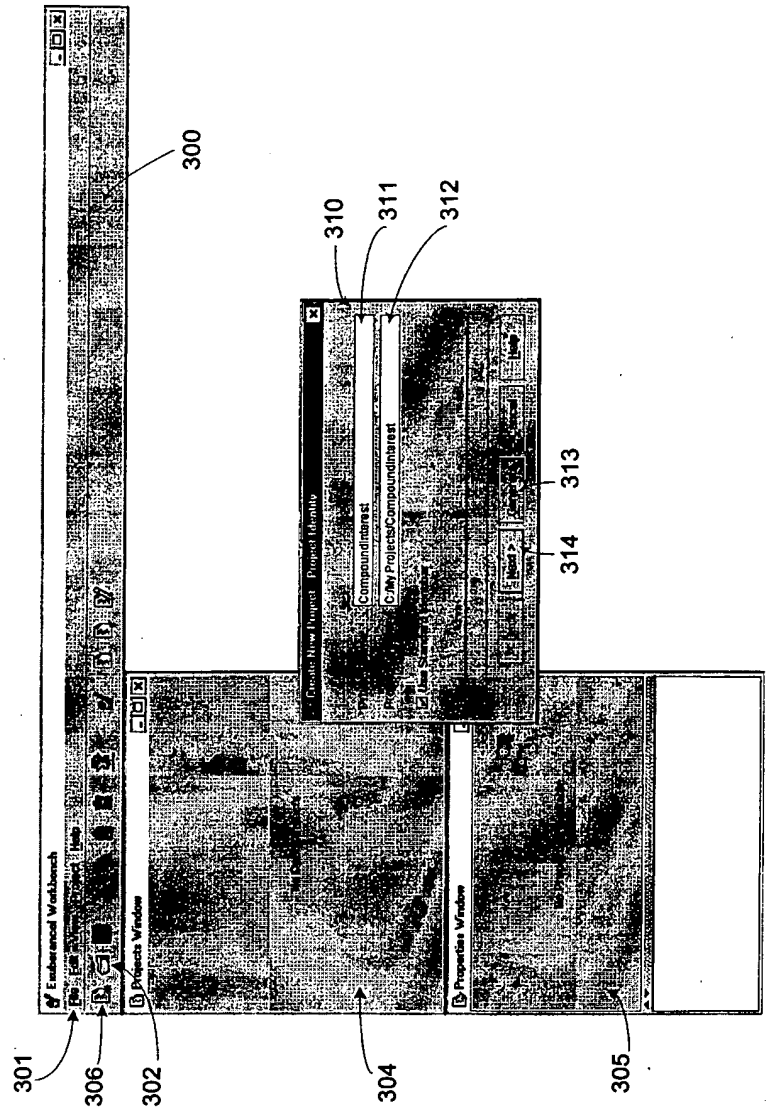
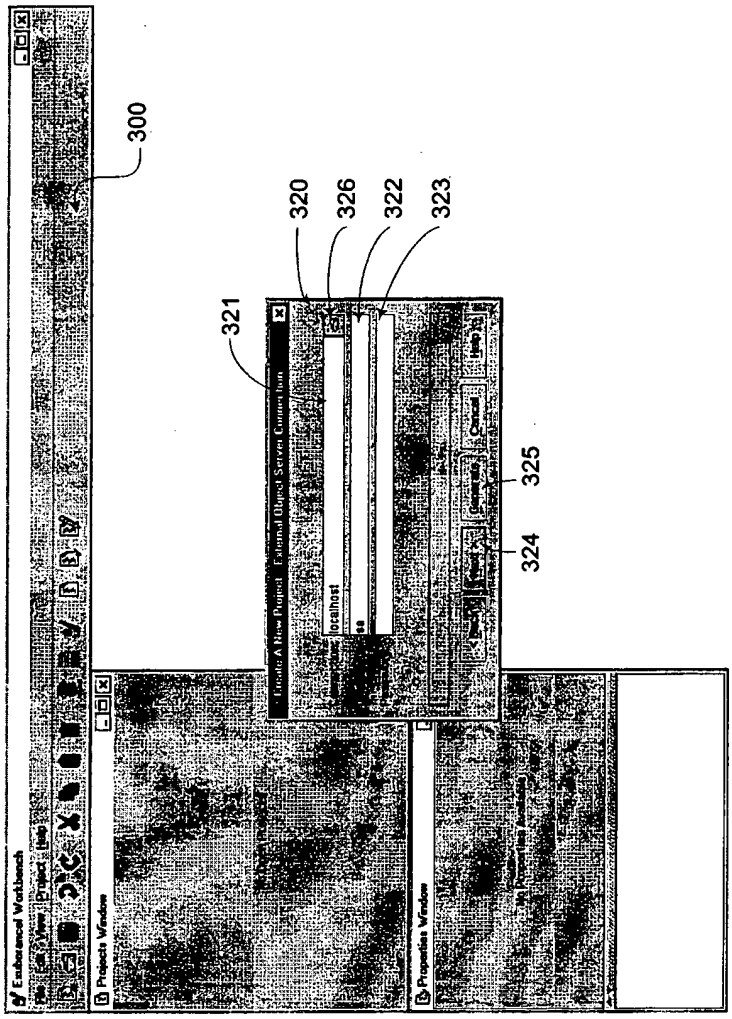
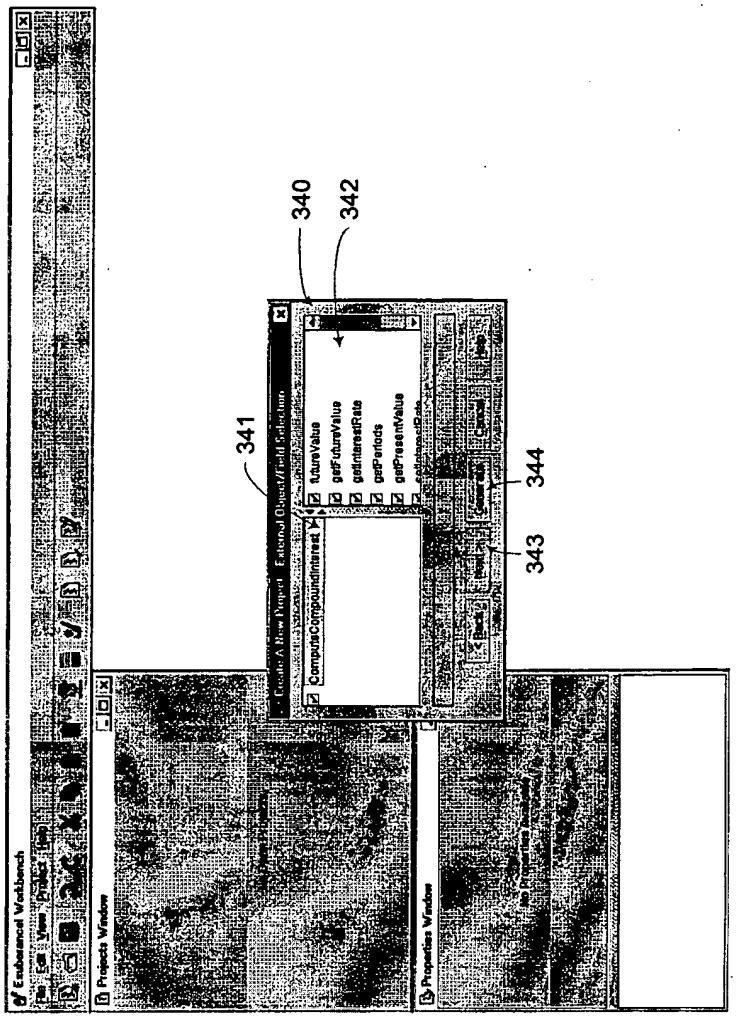

Development Process
100 Create a new project
True
False
102 Select and load existing project
101 Generate new default project
103 Edit project
104 Globalizationalize project
105 Assistive features)
A
A
106 Test project
107 Generate project help
108 Build project
109 Save project changes?
True
110 Save Project Information
111 Deploy project
Development Process

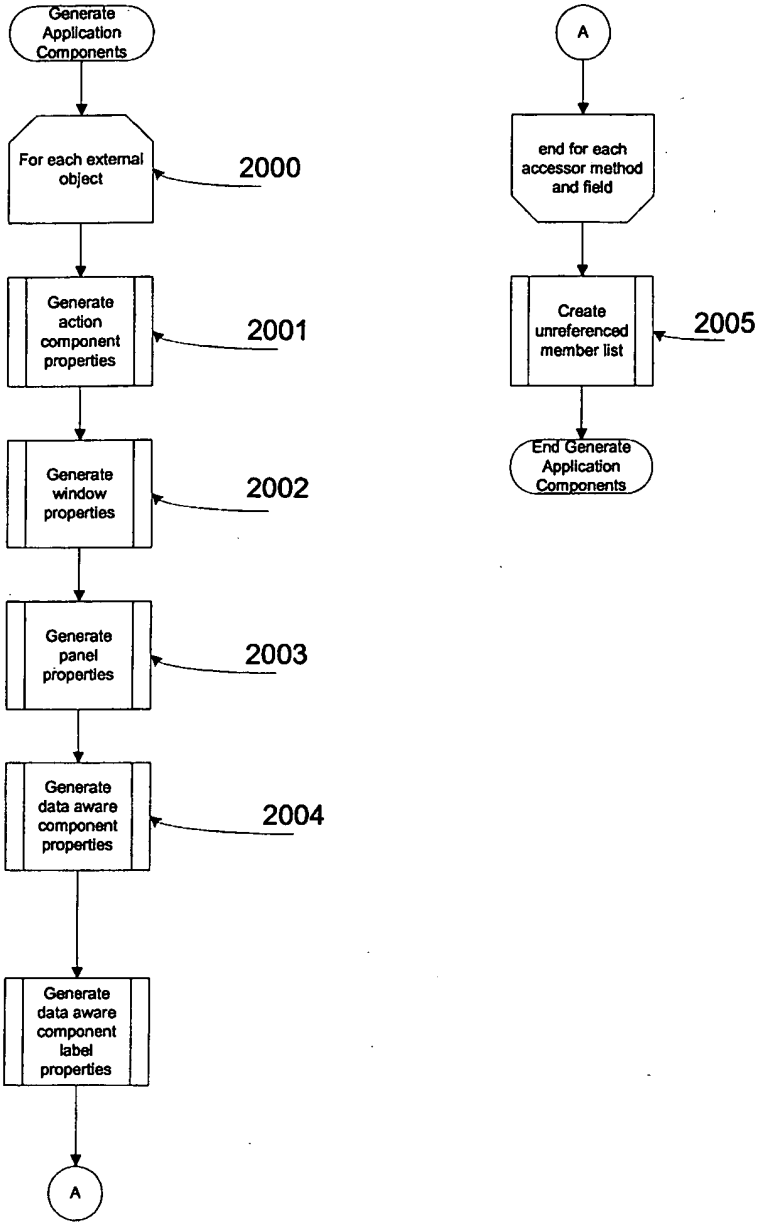

101
Start Default Project Generation
200
Collect Project Identity
201
Connection to external object?
Yes
No
202
Collect External Object Reference Information
203
Collect External Object Information
204
Generate?
Yes
No
205
Select External Object Details
206
Generate Base Project
207
Generate External Object Reference
208
Generate Application Components
209
Generate Project Folders
End Default Project Generation
206
Generate Base Project

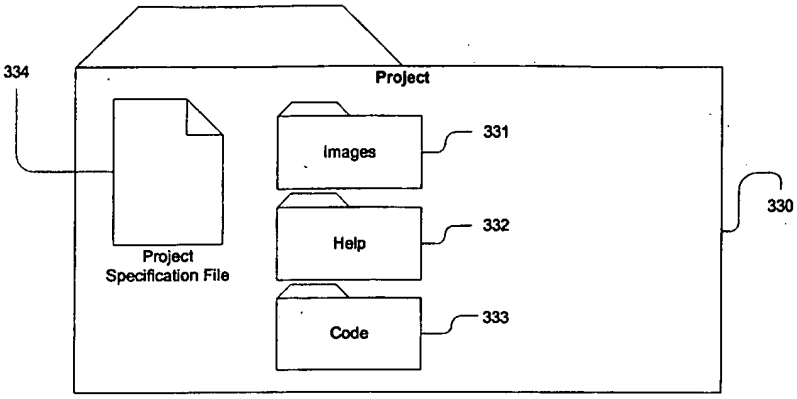

301
380
381
300
306
303
302
304
305

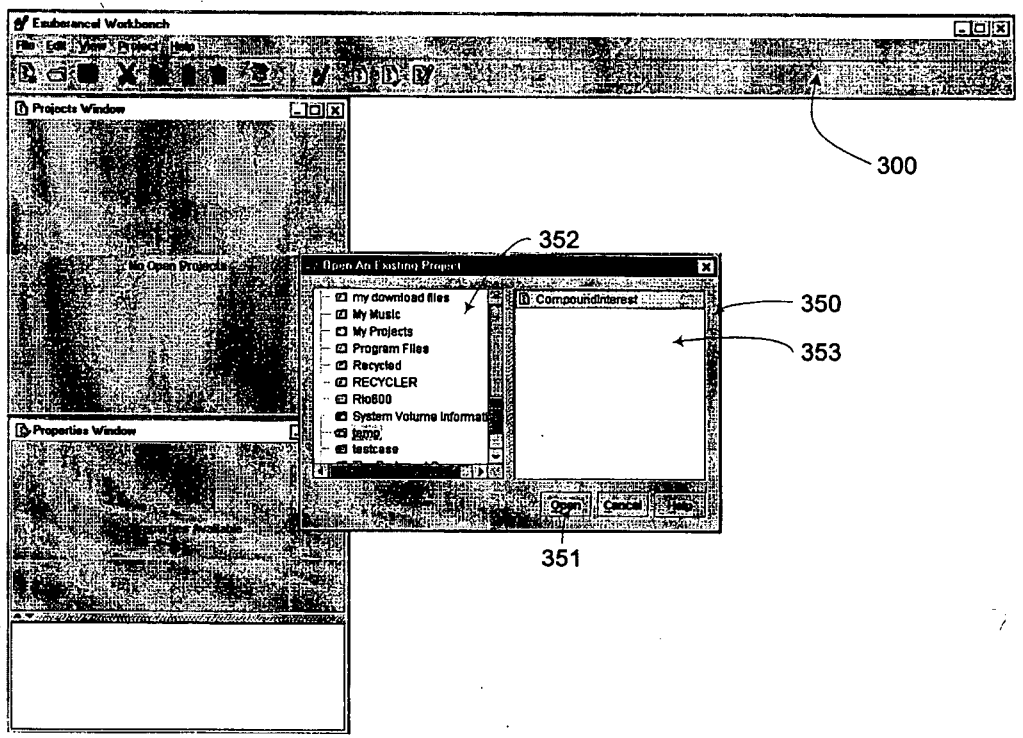

300
301
302
304
305
306
310
311
312
313
314
Projects Window
Properties Window
CompoundInterest
C:\My Projects\CompoundInterest

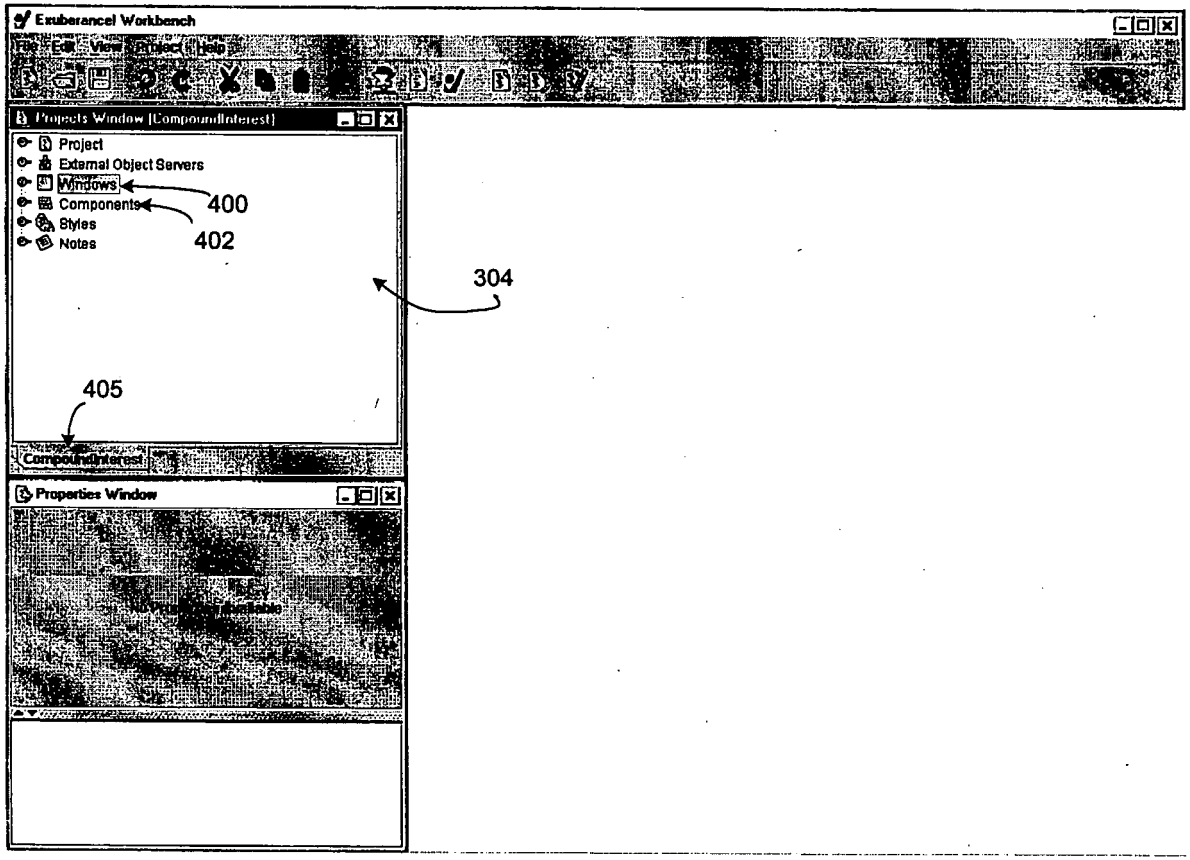

300
320
326
322
323
321
325
324
Enhanced Workbench
Projects Window
Properties Window
Create A New Project
External Object Server Connection
localhost
Connect
Cancel
Help

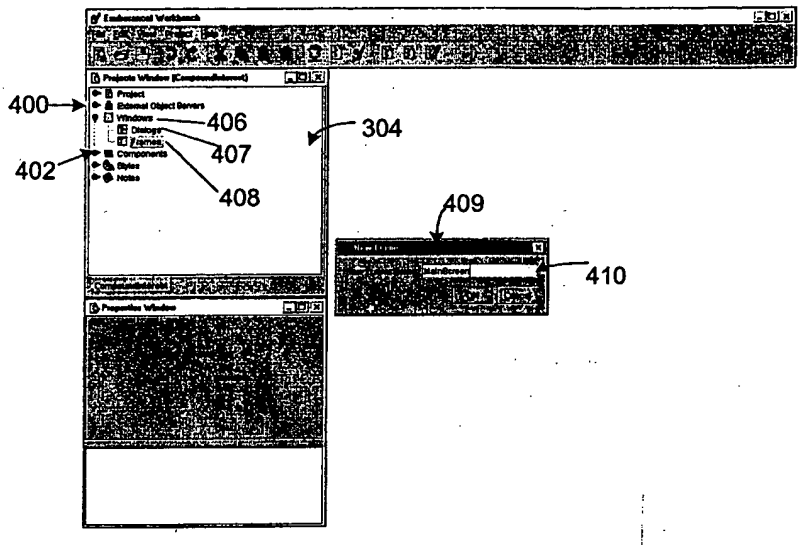

340
342
341
344
343

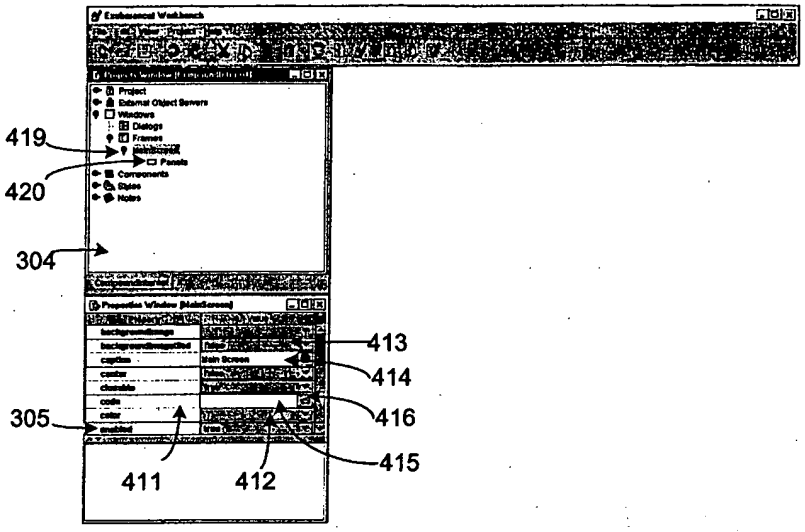

Generate Application Components
For each external object
2000
Generate action component properties
2001
Generate window properties
2002
Generate panel properties
2003
Generate data aware component properties
2004
Generate data aware component label properties
A
A
end for each accessor method and field
Create unreferenced member list
2005
End Generate Application Components

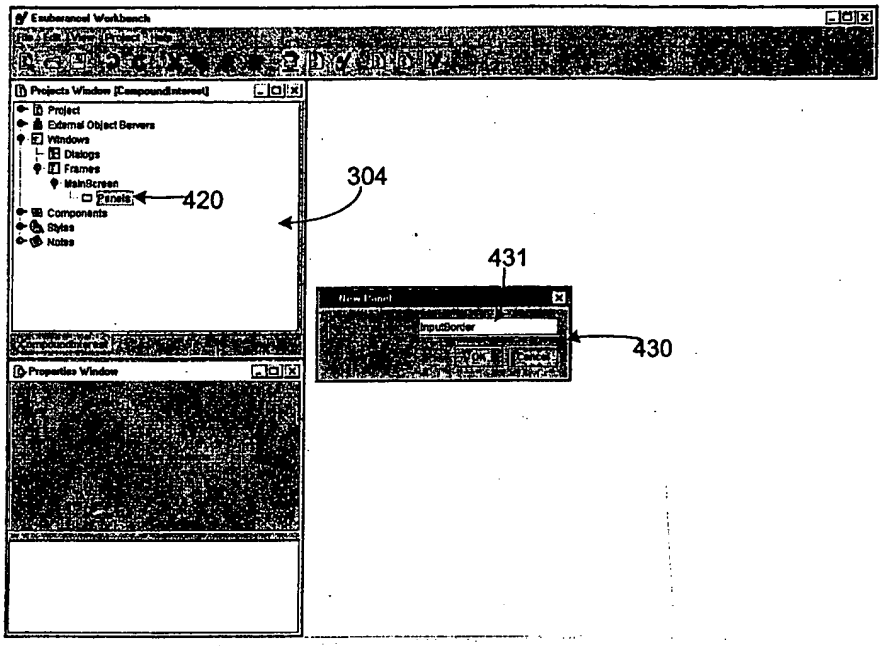

334
Project
Images
331
330
Help
332
Project
Specification File
Code
333

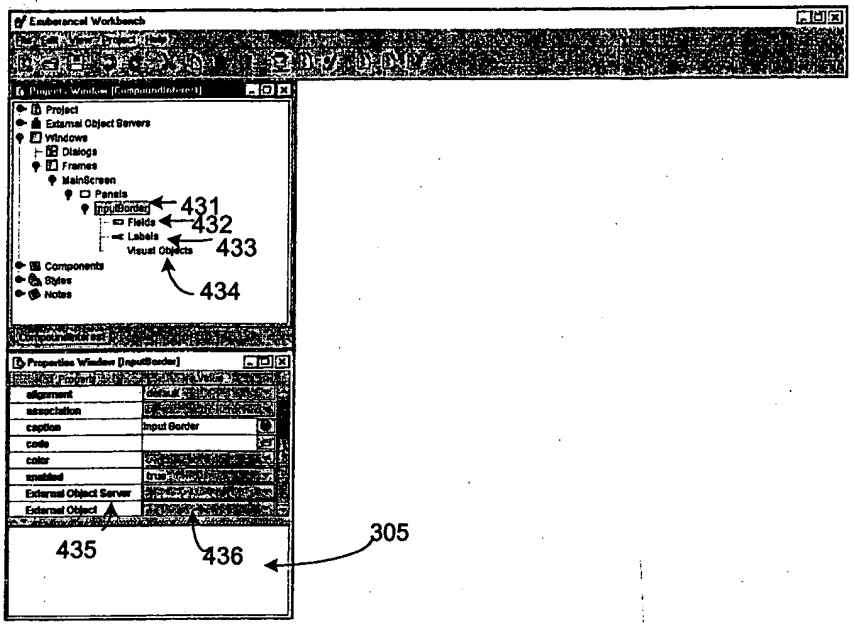

305
302
300
352
350
353
351
Exuberance Workbench
Projects Window
No Open Projects
Properties Window
Open An Existing Project
my download files
My Music
My Projects
Program Files
Recycled
RECYCLER
Rio800
System Volume Informati
temp
testcase
CompoundInterest
Open
Cancel
Help

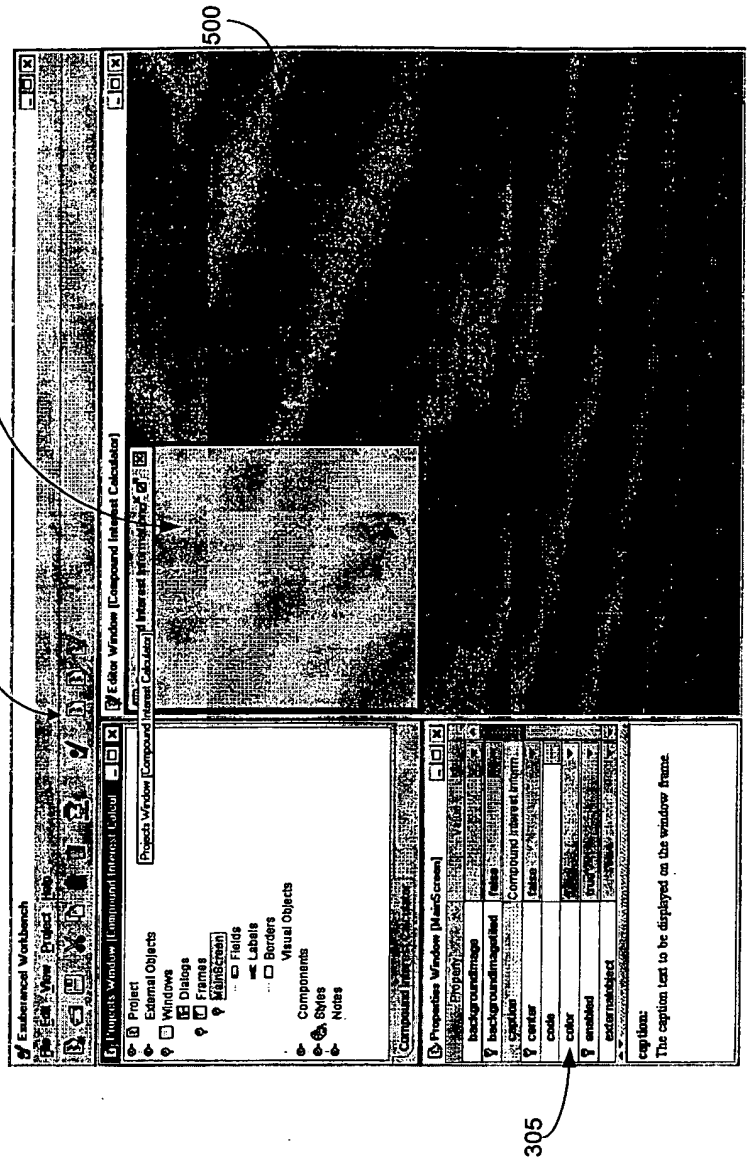

Exuberance! Workbench
File Edit View Project Help
Projects Window [CompoundInterest]
Project
External Object Servers
Windows
Components
Styles
Notes
400
402
304
405
CompoundInterest
Properties Window

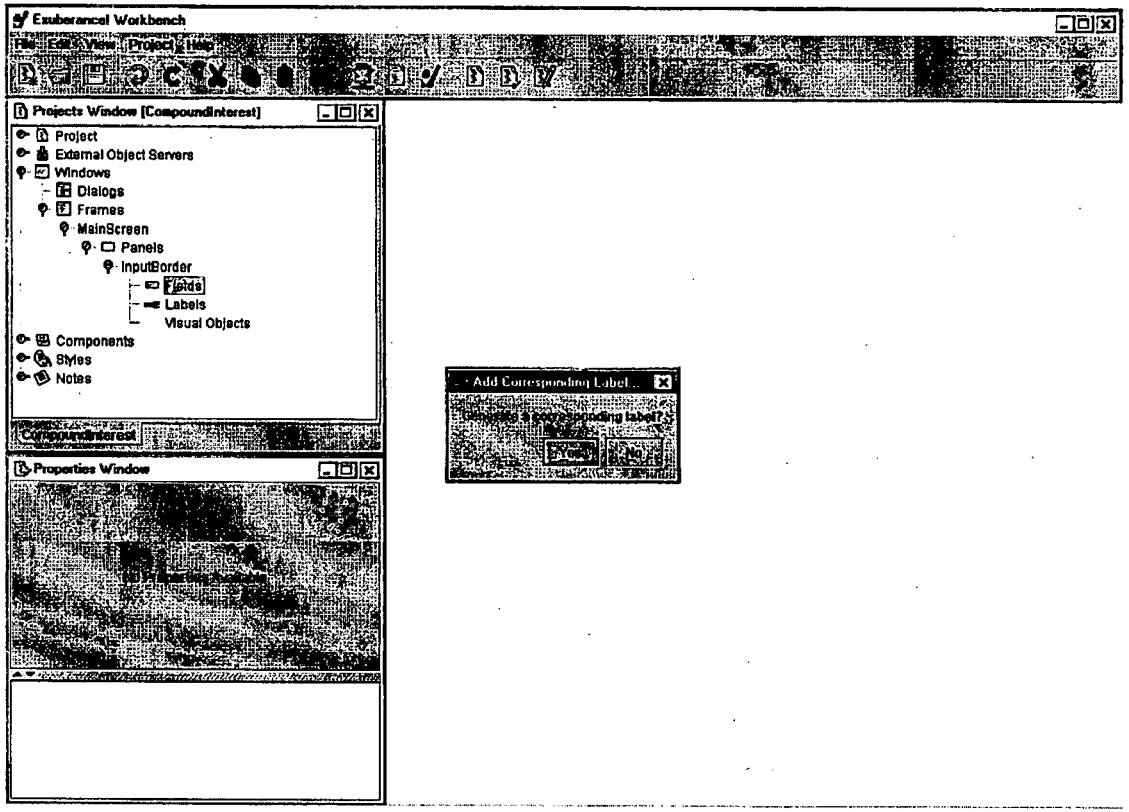

400
406
304
407
402
408
409
410

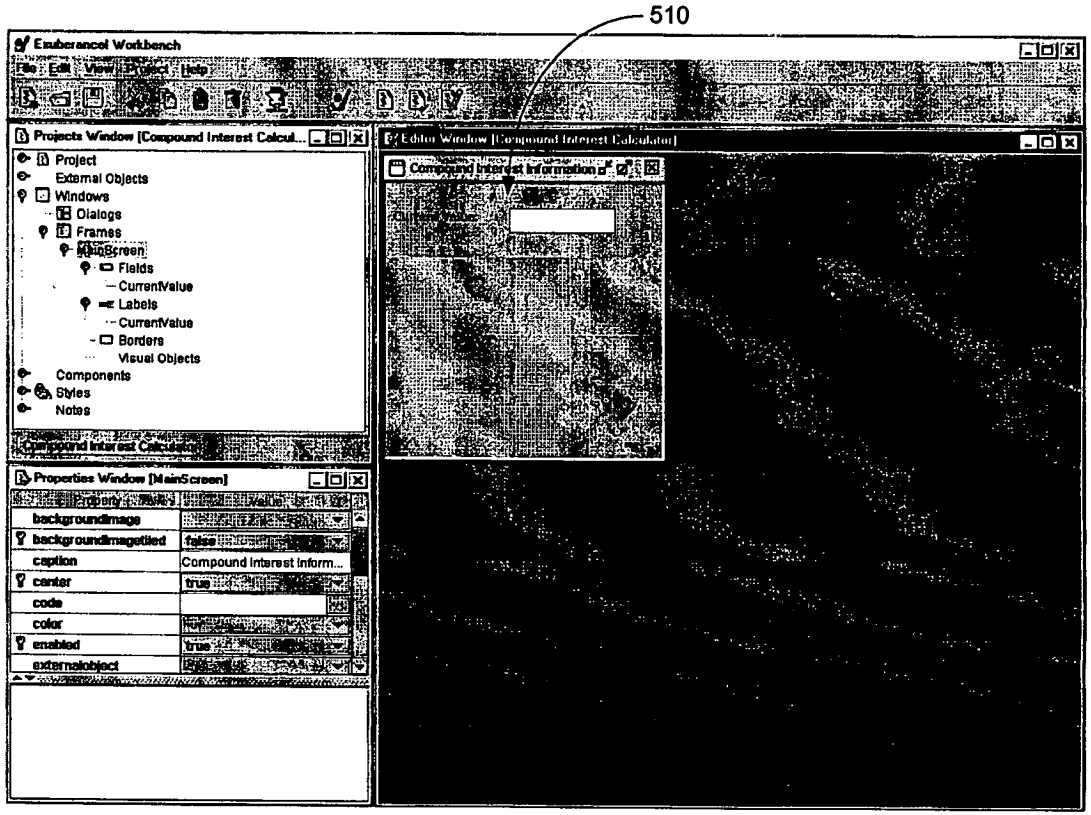

419
420
304
305
411
412
413
414
416
415

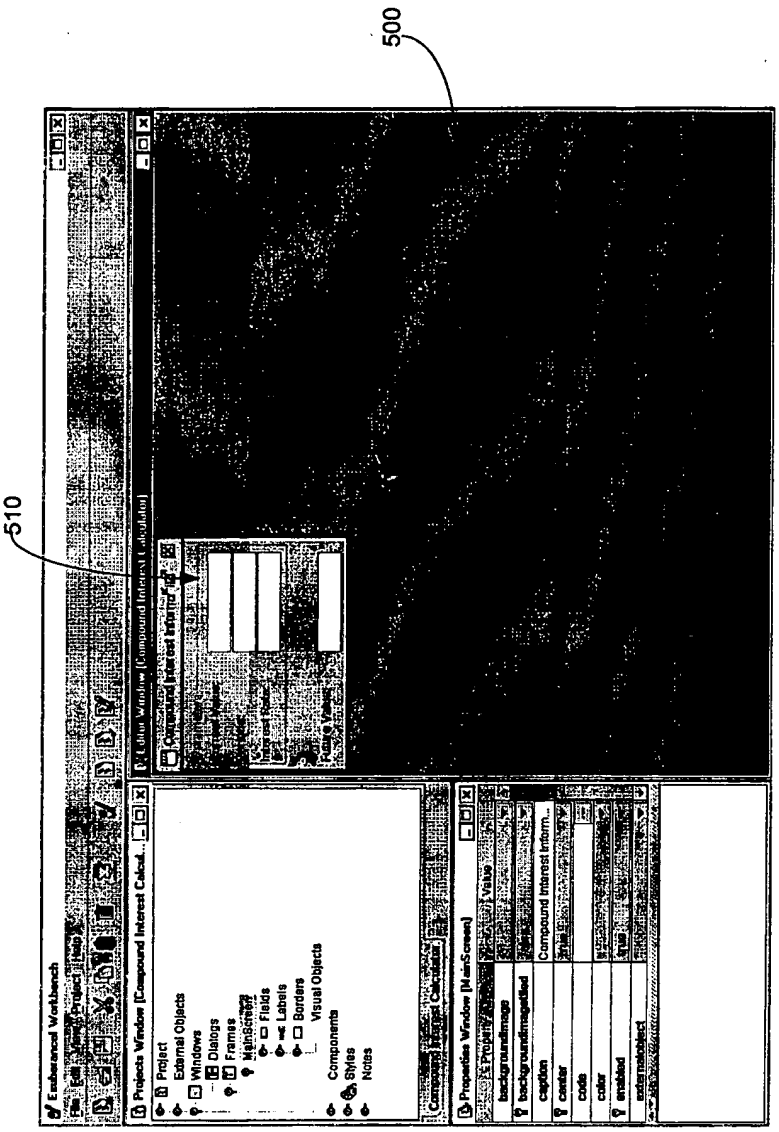

Enhanced Workbench
Projects Window [CompoundInterest]
Project
External Object Servers
Windows
Dialogs
Frames
MainScreen
Panels
Components
Styles
Notes
Properties Window
304
420
431
New Panel
InputBorder
OK
Cancel
430

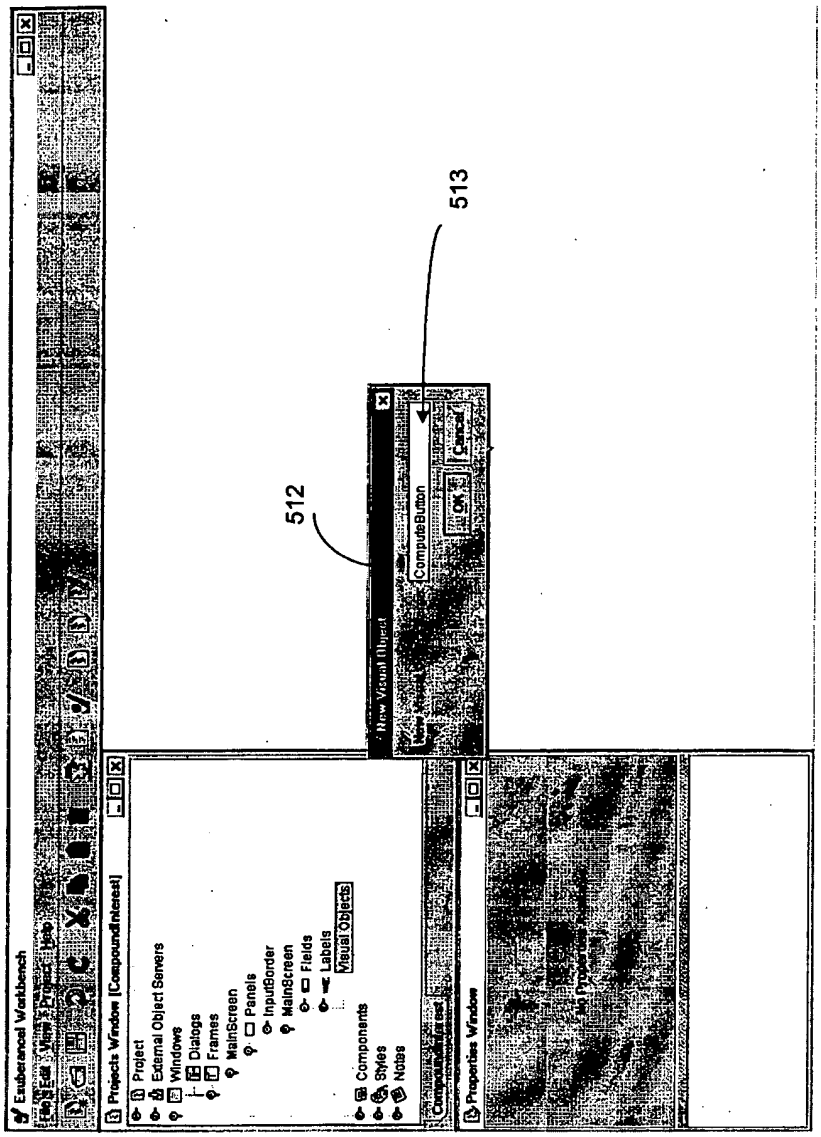

Project
External Object Servers
Windows
Dialogs
Frames
MainScreen
Panels
InputBorder
Fields
Labels
Visual Objects
Components
Styles
Notes
431
432
433
434
Property Window [InputBorder]
alignment
association
caption
Input Border
code
color
enabled
External Object Server
External Object
435
436
305

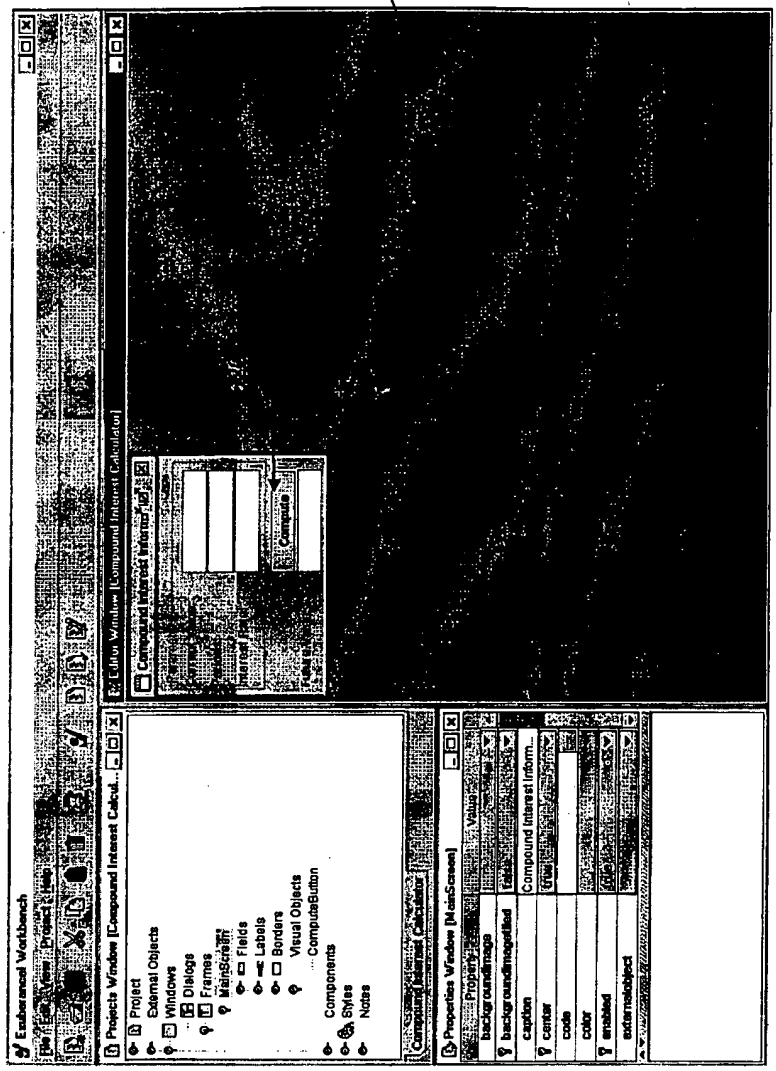

500
501
510
305

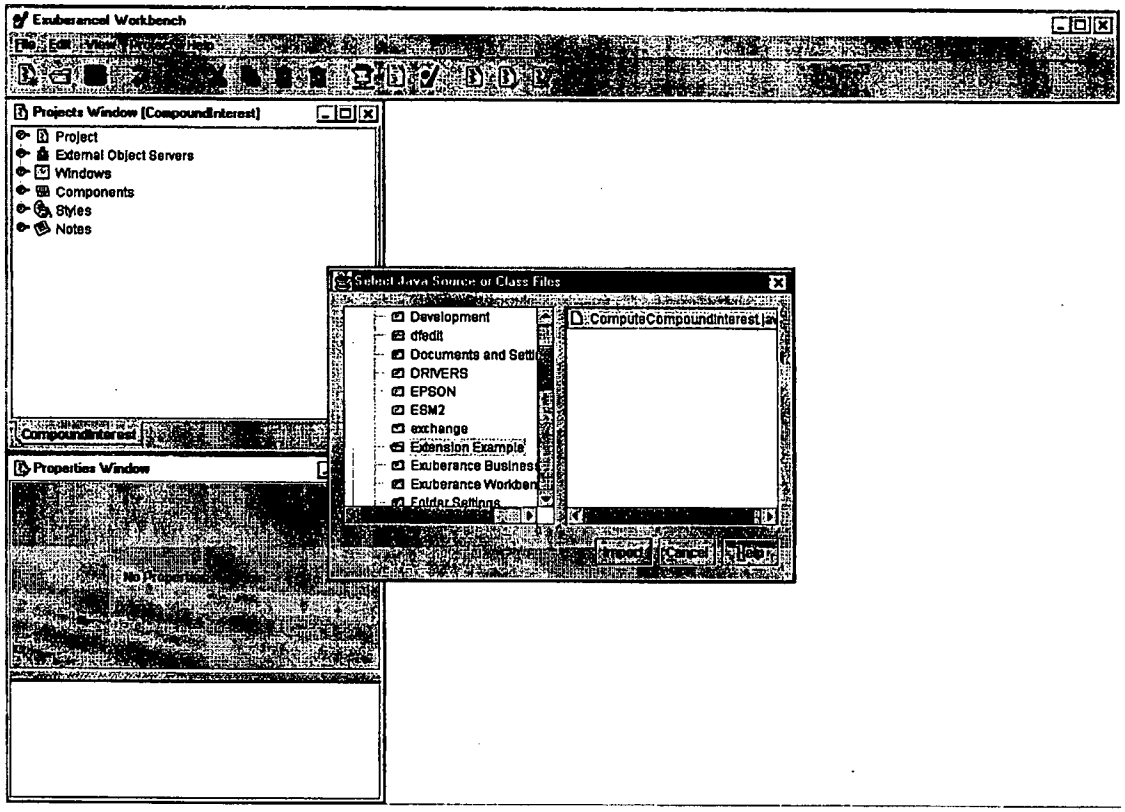

Exuberance Workbench
File Edit View Project Help
Projects Window [CompoundInterest]
Project
External Object Servers
Windows
Dialogs
Frames
MainScreen
Panels
InputBorder
Fields
Labels
Visual Objects
Components
Styles
Notes
CompoundInterest
Properties Window
Add Corresponding Label...
Yes
No

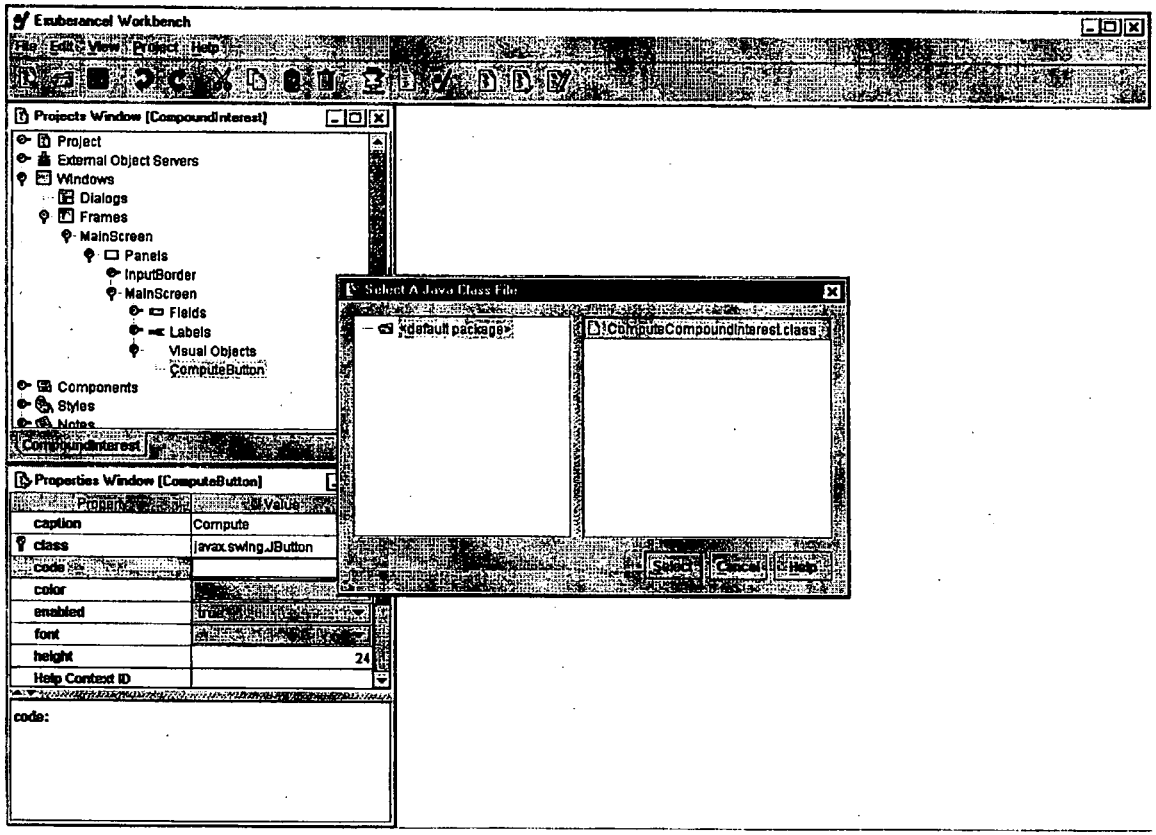

510
Exuberance! Workbench
File Edit View Project Help
Projects Window [Compound Interest Calcul...
Project
External Objects
Windows
Dialogs
Frames
MainScreen
Fields
CurrentValue
Labels
CurrentValue
Borders
Visual Objects
Components
Styles
Notes
Compound Interest Calculator
Properties Window [MainScreen]
Property
Value
backgroundImage
backgroundImageTiled
false
caption
Compound Interest Inform...
center
true
code
color
enabled
true
externalobject
Editor Window [Compound Interest Calculator]
Compound Interest Information


500
510


Exuberancal Workbench
File Edit View Project Help
Projects Window [CompoundInterest]
Project
External Object Servers
Windows
Dialogs
Frames
MainScreen
Panels
InputBorder
MainScreen
Fields
Labels
Visual Objects
Components
Styles
Notes
Properties Window
New Visual Object
ComputeButton
OK
Cancel
512
513

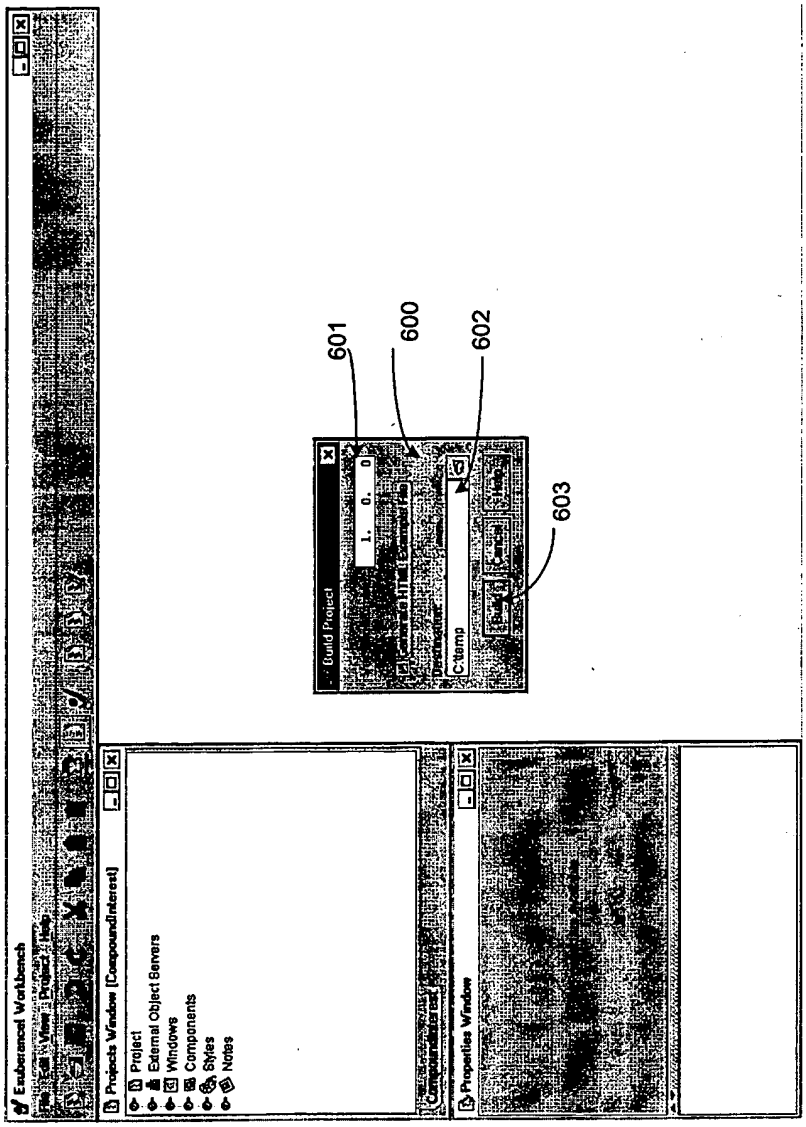

500

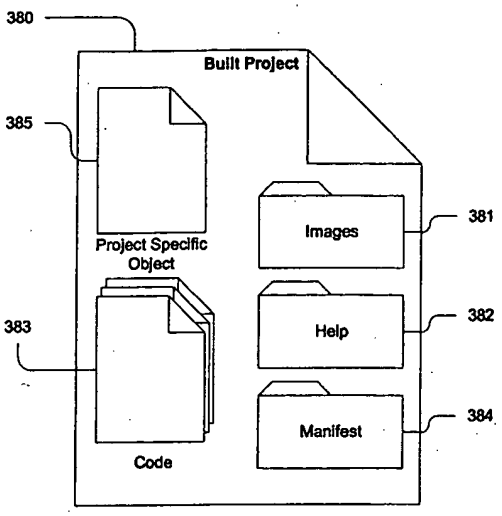

Exuberance Workbench
Projects Window [CompoundInterest]
Project
External Object Servers
Windows
Components
Styles
Notes
CompoundInterest
Properties Window
Select Java Source or Class Files
Development
dfedit
Documents and Setti
DRIVERS
EPSON
ESM2
exchange
Extension Example
Exuberance Business
Exuberance Workben
Folder Settings
ComputeCompoundInterest.ja

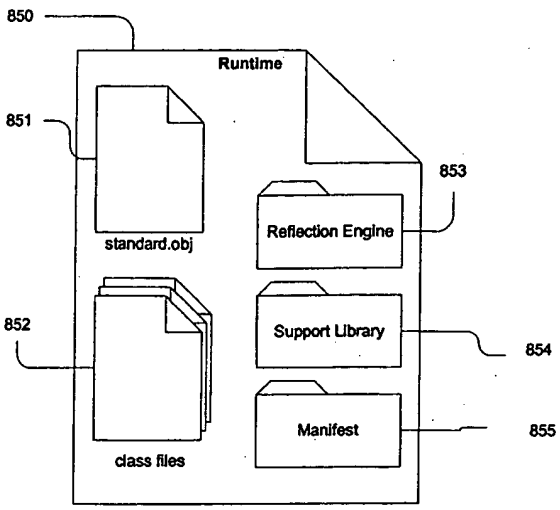

Exuberance Workbench
File Edit View Project Help
Projects Window [CompoundInterest]
Project
External Object Servers
Windows
Dialogs
Frames
MainScreen
Panels
InputBorder
MainScreen
Fields
Labels
Visual Objects
ComputeButton
Components
Styles
Notes
CompoundInterest
Properties Window [ComputeButton]
Property
Value
caption
Compute
class
javax.swing.JButton
code
color
enabled
font
height
24
Help Context ID
code:
Select A Java Class File
default package
ComputeCompoundInterest.class
Select
Cancel
Help

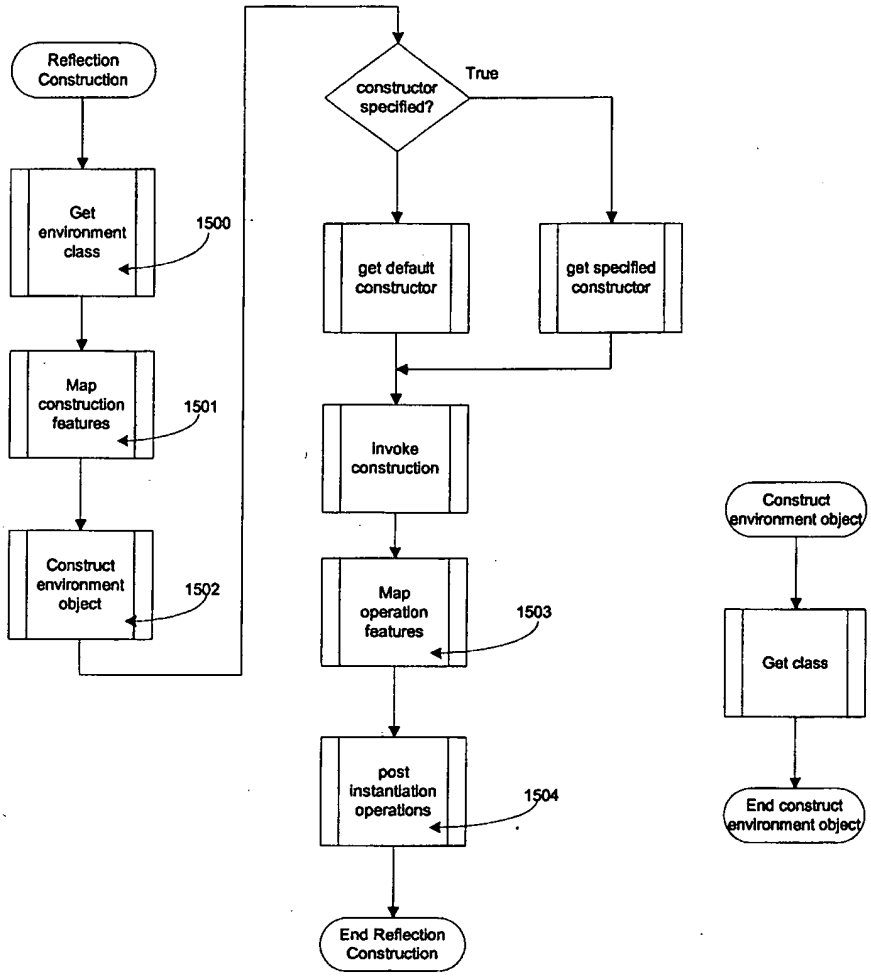
```
project.branchtype=project
project.caption=en_US\=Empty
project.copyright=
project.defaultlocale=en_US
project.directory=C\:\\My Projects\\Empty
project.exuberanceversion=1.0
project.majorversion=0
project.menubar=component.menu.ExuberanceDefaultFile,component.menu.
ExuberanceDefaultEdit,component.menu.ExuberanceDefaultWindow,
component.menu.ExuberanceDefaultHelp
project.minorversion=0
project.name=Empty
project.revisionversion=0
project.splash.branchtype=project.splash
project.supportedlanguages=en
project.supportedlocales=en_US
style.font.DefaultField.branchtype=style.font
style.font.DefaultField.name=Monospaced
style.font.DefaultField.size=12
style.font.DefaultLabel.bold=true
style.font.DefaultLabel.branchtype=style.font
style.font.DefaultLabel.italic=true
style.font.DefaultLabel.name=SanSerif
style.font.DefaultLabel.size=12
```

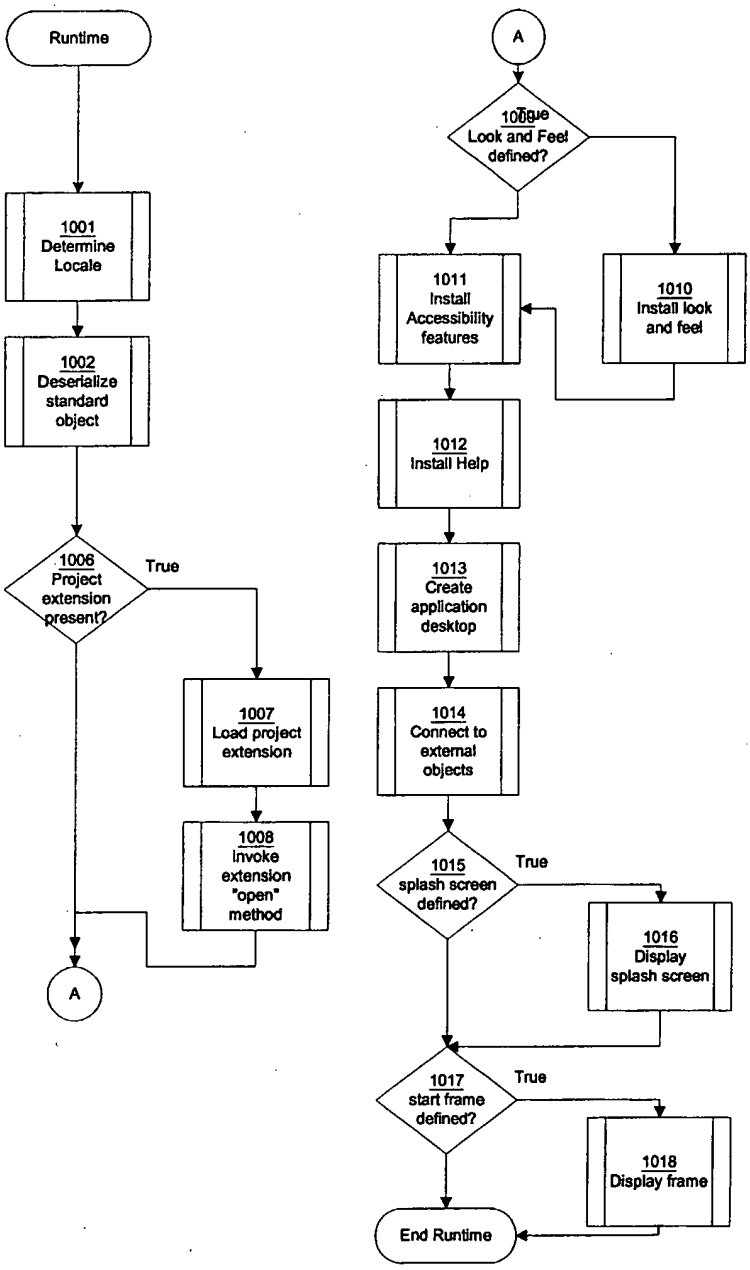
560 561

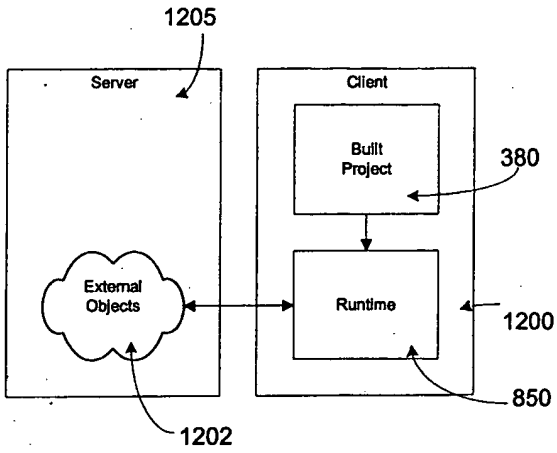

Exuberance Workbench
Projects Window [CompoundInterest]
Project
External Object Servers
Windows
Components
Styles
Notes
Properties Window
Build Project
CStamp
601
600
602
603

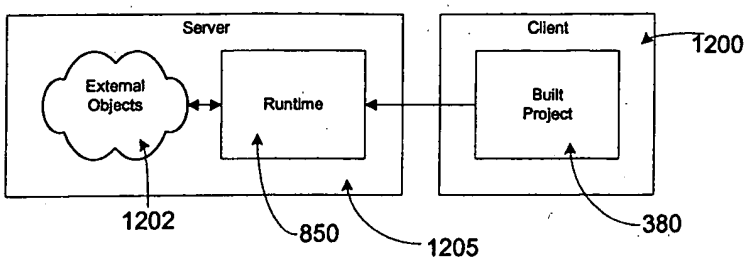

380
Built Project
385
Project Specific Object
383
Code
Images
381
Help
382
Manifest
384

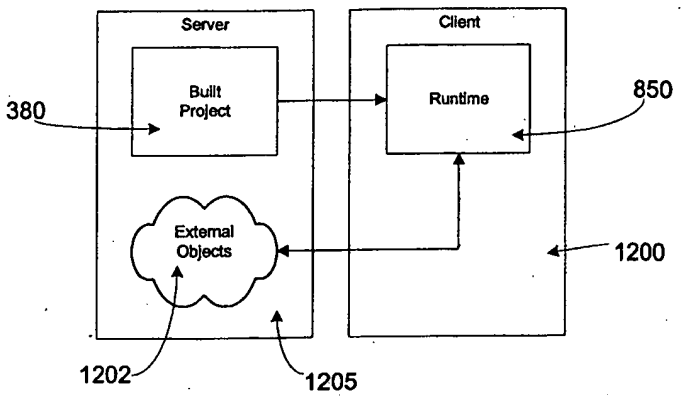

850
Runtime
851
standard.obj
853
Reflection Engine
852
Support Library
854
Manifest
855
class files

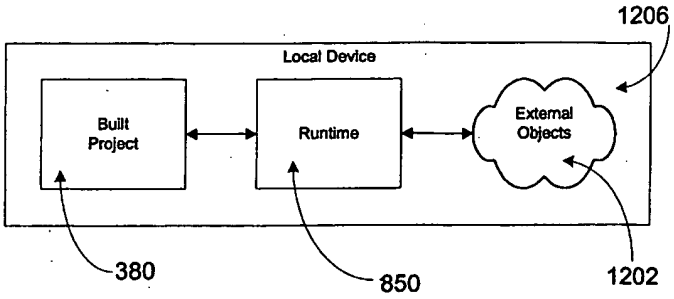

Reflection Construction
Get environment class
1500
Map construction features
1501
Construct environment object
1502
constructor specified?
True
get default constructor
get specified constructor
Invoke construction
Map operation features
1503
post instantiation operations
1504
End Reflection Construction
Construct environment object
Get class
End construct environment object


Runtime
1001 Determine Locale
1002 Deserialize standard object
1006 Project extension present?
True
1007 Load project extension
1008 Invoke extension "open" method
A
A
1009 Look and Feel defined?
True
1011 Install Accessibility features
1010 Install look and feel
1012 Install Help
1013 Create application desktop
1014 Connect to external objects
1015 splash screen defined?
True
1016 Display splash screen
1017 start frame defined?
True
1018 Display frame
End Runtime


1205
Server
Client
Built Project
380
External Objects
Runtime
1200
850
1202


Server
Client
1200
External Objects
Runtime
Built Project
1202
850
1205
380


Server
Client
Built Project
Runtime
380
850
External Objects
1200
1202
1205


1206
Local Device
Built Project
Runtime
External Objects
380
850
1202